

# **MEMORANDUM**

10/01/2014

To: Distribution

From: Seminole County Community Rating System Coordinator

Subject: Floodplain Management Plan 2014 Progress Report

## **Background**

Due to Tropical Storm Faye in 2008, Seminole County was inundated with severe flooding. In turn, the amount of Repetitive Loss properties grew substantially from 4 to 15, 12 of which are insured under the NFIP. To maintain our Class 7 (now a Class 6) rating in the Community Rating System (CRS), the County was required to prepare and maintain a Floodplain Management Plan in accordance with CRS Activity 510.

Seminole County assembled the Floodplain Management Planning Committee (FMPC) to develop the Floodplain Management Plan. The representatives included interested municipalities, federal and state agencies, citizens, representatives of Seminole County Departments and other stakeholders. After many meetings and working with AMEC Consulting, the final Floodplain Management Plan was adopted by the Seminole County Board of County Commissioners as an appendix to the Seminole County to the Local Mitigation Strategy through Resolution 2011-R-93 on May 10<sup>th</sup>, 2011.

After the Floodplain Management Plan was adopted, the FMPC was converted to a permanent advisory body and integrated into the Seminole County Local Mitigation Strategy (LMS) Working Group. The LMS Working Group meets quarterly to review and promote mitigation proposals, opportunities and projects.

## **How Report was Prepared**

On August 26, 2014, the Floodplain Management Team performed an evaluation of all Floodplain Management Plan Action Items. Representatives (Building Division, Planning & Development, Emergency Management, Stormwater, and Roads/Public Works) provided feedback into the action items and the status of their projects. A description of the current status was listed on a Floodplain Management Plan Goals and Action Items Matrix. Using that information, this report was prepared by Steven Lerner, Mitigation- Recovery Coordinator and Tony Coleman, CFM, Floodplain Administrator and CRS Coordinator for Seminole County.

## **Distribution**

Copies of this report (as well as the Floodplain Management Plan) are available for viewing at the Seminole County Building Division located at 1101 E. 1st Street, Sanford, FL and all Seminole County Library Branches. In addition, they may be viewed online at <http://www.seminolecountyfl.gov/gm/pdf/FMP-Update2014.pdf>. This report has also been released to the State of Florida NFIP Coordinating Office, the Seminole County Board of County Commissioners, and to the public through the Sanford Herald and the Orlando Sentinel newspapers.

## **Action Items**

### **Action Item 1. Subdivision Ordinance Improvements**

The County staff should explore development of example subdivision ordinance language that requires new infrastructure to have hazard mitigation provisions, such as: Buried utility lines and Storm shelters in new mobile home parks.

*Responsible Agency:* Seminole County Development Services

*Deadline:* December 1, 2012/ Ongoing

*Cost:* Staff Time

*Benefits:* This will improve the hazard protection standards for new construction and will ensure less damage to utility lines and help protect vulnerable structures.

*This is an ongoing action. As of this time no new manufactured housing developments have been proposed and we do not anticipate any in the near future. There are several ordinances that regulate the development of property within the special flood hazard area. The subdivision development ordinance is continually being evaluated for potential improvements and/or higher standards. Current discussions are underway with applicable County departments to seek cooperation and agreements with private utility providers for the mandating of underground utilities. There also has been a rezone and redevelopment of a large (several hundred lot) existing Manufactured / Park Model Home community that is being developed as a Single Family Home community incorporating all of the requirements of the Florida Building Code, Seminole County LDC and Floodplain Ordinance.*

*Some portions of Land Development Code have been rewritten and approved by the Board of County Commissioners to include updated water quality standards.*

*Development activities within the flood prone areas shall be limited in scope. A study shall be provided for any change in the flood prone elevations. This study must be approved by the County Engineer, the Development Review Manager, the Board of County Commissioners and the Federal Emergency Management Agency (FEMA).*

### **Action Item 2. Preserve Open Space**

The County should use every opportunity to encourage preservation of floodplain areas as open space or other uses compatible with the flooding hazard to preserve floodplain storage capacity and reduce the potential for damage to structures.

*Responsible Agency:* Seminole County Development Services

*Deadline:* January 2016/ On-Target

*Cost:* Staff Time

*Benefits:* Preservation of floodplain areas as open space will help to maintain floodplain storage capacity and help to reduce potential flood damage to structures. This also meets a goal in the Seminole County Comprehensive Plan.

*This is an ongoing process and all applicable County Divisions regularly review and recommend ways and means to improve and implement County land development regulations. A rewrite of the open space ordinance has been completed for adaptation with the Florida Building Code as required. Seminole County also continues to monitor Severe Repetitive Loss Properties and encourages mitigation activities to those homeowners. There are also several repetitive loss properties that we are assisting with grant applications for mitigation. If applicable based on the type of mitigation these properties will be deeded and preserved as open space.*

### **Action Item 3. Evaluate Increasing Higher Standards**

The County should continue to enforce its existing regulations for development and mobile homes and consider the cost and benefits of other higher standards to further protect the residents of Seminole County, such as a higher freeboard requirements.

*Responsible Agency:* Seminole County Building Division

*Deadline:* December 1, 2013

*Cost:* Staff Time

*Benefits:* Higher flood protection measures can reduce damage to structures and have the potential to reduce the cost of flood insurance premiums.

*The Seminole County flood plain ordinance has been re-written to align with the 2010 Florida Building Code flood provisions and is now in the review process. The original proposal for increasing our higher standards have been removed as the County's Flood Plain Ordinance already has appropriate existing higher standards. The rewrite has been reviewed by County staff and County legal dept. and has now been sent to the State review contractor for evaluation prior to being presented to the Board for adoption.*

### **Action Item 4. Develop Property Evaluation Checklist**

A standard checklist should be developed to evaluate a property's exposure to damage from floods. It should include a review of insurance coverage and identify where more information can be found on appropriate property protection measures. The checklist should be provided to each agency participating in this planning process and made available to the public. This checklist should also be applied to Seminole County's own properties. A priority should be placed on those critical facilities in the floodplain and whether public properties are adequately insured.

*Responsible Agency:* Seminole County Office of Emergency Management and Building Division

*Deadline:* December 1, 2012

*Cost:* Staff Time

*Benefits:* Identifies buildings' vulnerability to flood damage and reviews the flood insurance coverage. It should help identify what property protection measures should be used to protect the building.

*This has been completed and is in the process of printing and development to be posted online. As of 9/12/2014 this checklist is being updated and revised and will be reprinted and posted when revision is completed.*

### **Action Item 5. Evaluation of Cost Sharing Programs**

Seminole County should evaluate establishment of cost sharing programs, such as rebates, to encourage low cost (under \$10,000) property protection measures on private property.

For example:

- Surface and subsurface drainage improvements,
- Berms and regrading for shallow surface flooding, and
- Relocating heating and air conditioning units above the base flood elevation.

*Responsible Agency:* Seminole County Office of Emergency Management and Building Division

*Deadline:* January 1, 2014

*Cost:* Staff Time

*Benefits:* A revolving loan or rebate program would allow property owners to fund low cost mitigation to protect their structure from flood damage. This has the potential to reduce repetitive loss flooding.

*This is an ongoing task that is that is always taken into consideration during floodplain management meetings, however it is one that is difficult to develop and implement during difficult economic periods. There have been improvements to the stormwater drainage system, the cost of which has been shared among multiple jurisdictions and government agencies. The Building Division has initiated a program offering free mechanical permits to those interested in elevating their HVAC systems. The research of new mitigation activities and best practices has been incorporated in the Office of Emergency Management Strategic Plan. The Office of Emergency Management also hired a Mitigation-Recovery Coordinator to seek extra funding for mitigation projects. Lake levels have been evaluated for the lowest structure at each level and are updated monthly for operational planning considerations.*

#### **Action Item 6. Seek Funding for Repetitive Loss Properties and Critical Facilities**

The County should seek state and federal funding support for higher cost measures, such as elevation, relocation and acquisition of high priority properties. The Hazard Mitigation Grant Program, Flood Mitigation Assistance Program, Pre-Disaster Mitigation Program, Repetitive Flood Claims and Severe Repetitive Loss Grant Programs should be investigated for all eligible properties. High priority properties are:

- Those properties in repetitive loss areas.
- Critical facilities in the floodway or subject to flood depths of more than two feet.

*Responsible Agency:* Seminole County Office of Emergency Management and Building Division

*Deadline:* January 1, 2016

*Cost:* Staff Time

*Benefits:* Elevation, relocation and acquisition of repetitive loss properties is effective mitigation.

At the time of consideration for each structure, FEMA Benefit-Cost Software must be used to determine if the project meets eligibility requirements. If so, reducing repetitive damage to a structure will have a positive impact on the Flood Insurance Fund. *We have currently secured 3 repetitive loss flood mitigation grants. (Lunsford, Fleihs and Campbell properties)*

*The Lunsford project is now 100% completely elevated. The Campbell home was purchased and demolished; deeded as open space. An FMA Grant will be submitted for elevation of the Fleihs home. Seminole County has also encouraged homeowners in repetitive flood areas to seek assistance for mitigation activities. This is an ongoing project that is on target but will always be in process. There are currently several property owners we are assisting with grant mitigation applications.*

#### **Action Item 7. Enforcement of Surface Water Management Ordinance**

Seminole County should continue to enforce the wetland protection, erosion and sediment control and BMP provisions of the Surface Water Management Ordinance. With three large lakes and almost 90 square miles of floodplain, to remain "Florida's Natural Choice," rigorous enforcement of the Surface Water Management Ordinance is necessary.

*Responsible Agency:* Planning & Development and Engineering Divisions

*Deadline:* Ongoing

*Cost:* Staff Time and Operating Budget

*Benefits:* Preserving the natural and beneficial functions of the floodplain provides multiple

positive benefits for Seminole County, including recharging the aquifer, maintaining species of flora and fauna, and providing for recreational activities for both residents and visitors to Seminole County.

*This is an ongoing action that is always under consideration and review for improvements and implementation of higher standards. All building permit applications submitted for properties located in a Wetland or Floodplain are reviewed carefully for compliance.*

#### **Action Item 8. Review and Update Emergency Operations Plan**

The *Seminole County Emergency Operations Plan* should be reviewed in detail on an annual basis to determine where updates and improvements can be made and how to maximize credit under CRS. The *Plan* should then be submitted periodically for credit under CRS, and CRS will provide a critique of the plan to show what further improvements are needed.

*Responsible Agency:* Seminole County Office of Emergency Management

*Deadline:* December 31, 2011

*Cost:* Staff Time and Operating Budget

*Benefit:* An outdated Emergency Operations Plan will put both people's health and lives at risk. Making sure that phone numbers, communication, etc. are updated and new facilities and populations are added is crucial to response and recovery in Seminole County.

*The Comprehensive Emergency Management Plan was updated and an administrative change was sent to all governing bodies in June of 2014. The new floodplain management plan is in draft stages and will incorporate all municipalities in Seminole County once approved.*

#### **Action Item 9. Installation of Stream and River Gauges**

The County should consider all possible local, state and federal funding options for installation of additional stream and river gauges to provide a higher level of protection to its residents. The investigation of additional gauging stations should be done in cooperation with the National Weather Service, St. Johns River Water Management District, the United States Geological Survey and FEMA.

*Responsible Agency:* Seminole County Office of Emergency Management

*Deadline:* January 1, 2016

*Cost:* Estimated at \$35,000 for one gauging station with annual operating costs of approximately \$18,000.

*Benefit:* Additional gauging stations will allow for more accurate forecasting of floods and help to provide better warning information to the residents of Seminole County.

*Project dead line is January of 2016 and is currently on target. A forecast point has been added for the Wekiva River at State Road 46.*

*Seminole County Office of Emergency Management monitors the Southeast River gauges daily to provide situational awareness to community partners. Seminole County also added the Wekiva River forecast point in 2013.*

#### **Action Item 10. Evaluate Evacuation Routes**

The County should ensure that all steps are being taken to alleviate traffic jams during an evacuation of the County. Hurricane warnings versus toxic fumes may require different routes to be used for evacuation. Based on current and future population projections, the County should ensure that there is adequate roadway to carry residents to safety.

*Responsible Agency:* Seminole County Office of Emergency Management

*Deadline:* January 1, 2014

*Cost:* Staff Time and Operating Budget

*Benefit:* Proper safe evacuation is a benefit to the security of the residents of Seminole County.

*Action was completed as of June 2012 by the Seminole County Office of Emergency Management. This action item was updated and enhanced in May of 2014. The East Central Florida Planning Council, under the direction of the Office of Emergency Management developed a regional evacuation model for Central Florida. The model has been incorporated into the local evacuation plan. In cooperation with DOT and Seminole County Road, cameras and variable message board signs can now be controlled from the EOC during evacuations.*

#### **Action Item 11. Post-Disaster Procedures and Policies**

The County's emergency preparedness, public information, and permits staffs should work together to formalize the post-disaster procedures for public information, reconstruction regulation and mitigation project identification which are outlined in Chapter 8. Those ideas should be expanded, further developed and expanded on and adopted as a clear set of policies and procedures.

*Responsible Agency:* Seminole County Emergency Management and Building Division

*Deadline:* January 1, 2014

*Cost:* Estimated \$10,000 to \$12,000

*Benefit:* Established formal post-disaster policies and procedures ensure that public information going out to the public is accurate and originates from a single source, that reconstruction regulation occurs systematically with safety in mind, and that a clear set of mitigation projects are defined after damage assessment records have been finalized.

*This action item was completed January of 2013. Seminole County has developed and adopted a Post Disaster Recovery Plan. For more information, contact the Seminole County Office of Emergency Management.*

#### **Action Item 12. Continued On-Site Detention and Retention and Evaluation of County Maintenance of Facilities**

The County should continue to require developers to provide on-site detention and retention to lessen the volume and rate of runoff from developed sites. The County should evaluate the inspection and maintenance of these facilities to ensure that the designed storage is maintained and outfalls and piping remain in good condition.

*Responsible Agency:* Seminole County Engineering and Public Works Departments

*Deadline:* Ongoing/January 1, 2014

*Cost:* Staff Time

*Benefit:* Reduction in the volume and rate of post-development runoff and immediate increases to flow in stream and channels, reducing the potential for building damage and saving lives from faster flowing currents in those systems.

*Seminole County Public Works, through the Watershed Management Division, has an on-going pond inspection program for all County owned and Functional Use Subdivision ponds to comply with the new requirement of the NPDES Permit requirements. The SJRWMD also requires all ponds permitted by the Water Management District to have all ponds inspected on a 2 year cycle, to ensure the pond is functioning as designed.*

#### **Action Item 13. Regional Detention**

The County should consider the benefits of upper watershed regional detention as a way to reduce downstream flow. This approach could be combined with the preservation of open space of sensitive lands.

*Responsible Agency:* Seminole County Engineering and Public Works Departments

*Deadline:* Ongoing/January 1, 2016

*Cost:* Staff Time

*Benefit:* Regional detention is a benefit to piecemeal construction of individual on-site detention and retention facilities. By looking at the entire watershed, a holistic approach to watershed management is achieved. An additional benefit could be combining this effort with the preservation of flood-prone land.

*The Public Works Department, Engineering Division, looks at this goal on a site by site evaluation of County owned parcels, as funding for specific projects becomes available. Any re-development of areas within the urban boundaries that were originally developed 25 or more years ago will be held to the current subdivision ordinance which is more stringent and restrictive than the original development thus improving the flood and surface water management of these areas.*

#### **Action Item 14. Mullet Lake Park Road Stormwater Project**

The County should encourage one approach of the Mullet Lake Park Road Stormwater Improvement Project for implementation to reduce flooding and avoid future repetitive loss properties. This project is already recognized on the Seminole County Capital Improvement Plan.

*Responsible Agency:* Seminole County Engineering and Public Works Departments

*Deadline:* Ongoing/January 1, 2016

*Cost:* Estimated \$400,000 to \$900,000

*Benefit:* Completion of this capital improvement project will benefit many properties in the eastern section of Seminole County through reduced flow and flood conditions. By implementing this project, the County can reduce repetitive flooding and protect residents from future flooding.

*Preliminary engineering evaluation to have a joint project with the City of Sanford, on Site 10 west of SR 46, is in progress*

#### **Action Item 15 Outreach Projects for Natural Areas**

The public and decision makers should be informed about the hazard mitigation benefits of restoring rivers, wetlands and other natural areas. Restoration and protection techniques should be explained. This should include publicizing illicit discharge rules to a wider audience and the need to protect lakes, streams, rivers and wetlands from illegal dumping and inappropriate development. This campaign can be conducted through direct mail, website development, and/or neighborhood meetings.

*Responsible Agency:* Seminole County Planning, Building and Public Works Departments

*Deadline:* Ongoing/January 1, 2016

*Cost:* Staff Time and Operating Budget

*Benefit:* Increasing the public's awareness of the benefits of the natural and beneficial functions of the floodplain will help to reduce actions by the public which degrade the wetlands and water systems in the County.

*This is an ongoing action that is on target and continually under review and consideration for additional outreach items to be added to those that are already in place. The Building Division sent representatives to the annual Hurricane Expo to hand out informational brochures on flood preventative measures and to answer any questions pertaining to flooding.*

### **Action Item 16 Outreach Projects for Property Protection**

Public education materials should be developed to explain property protection measures that can help owners reduce their exposure to damage by floods and the various types of insurance that are available. Because properties in floodplains will be damaged at some point, a special effort should be made to provide information and advice to floodplain property owners. Special attention should be given to repetitive loss and high hazard areas. All property protection projects should be voluntary. Other than state and federally mandated regulations, local incentives should be positive as much as possible, such as providing financial assistance. This can be accomplished through the following techniques: The County's website should be improved to make navigation to flood hazard and safety information more intuitive. The County should increase its presence on social media, such as Facebook and Twitter, to maximize the number of people reached with flood hazard and safety information. The County should continue to distribute brochures about hurricanes to those living in the mapped floodplain. The County should continue to hold the Hurricane Expo and give away preparedness kits at the event. Staff should reach out to homeowners' associations and faith-based organizations to help spread the word about flood hazards and protection and safety measures. The County's website should have a dedicated mitigation page.

*Responsible Agency:* Seminole County Emergency Management and Building Departments

*Deadline:* Ongoing/January 1, 2016

*Cost:* Staff Time and Operating Budget

*Benefit:* A more educated population will enable residents to help protect themselves from flood

*Seminole County Division of Emergency Management completed the Hurricane Expo, met with Homeowner's Associations, Community social groups (Rotary, Lion's Club, etc).*

*Emergency Management increased their social media presence with public preparedness campaigns. Seminole County also implemented the 311 Mobile Phone App to assist citizens in reporting concerns throughout the County.*

### **Action Item 17 Public Information Outreach Strategy**

The County should consider implementation of a public information outreach program strategy for credit under the CRS and to prepare a program that seriously thinks about and considers the County's current outreach program in terms of what is currently working and what is not working. A committee would be established to undertake this process and set in motion a realistic and implementable public information program. This is extremely important since the County is currently without a dedicated Public Information Officer and the CRS will be adding more credit to this activity and reducing credit in other outreach measures.

*Responsible Agency:* Seminole County Emergency Management and Building Departments

*Deadline:* January 1, 2014

*Cost:* Estimated \$10,000 to \$15,000

*Benefit:* A public information outreach strategy will set forth a well organized and proactive outreach program that provides the residents and businesses in Seminole County with the information they need to protect themselves and will help to reduce the overall damage in future flood disasters.

*This is an ongoing action that is on target and continually under review and consideration for additional outreach items to be added to those that are already in place. Presently completed but updates will always be forthcoming.*

### **Action Item 18 Plan Adoption**



The Seminole County Board of Commissioners should adopt this Floodplain Management Plan as an appendix to the Local Mitigation Strategy through a formal resolution.

*Responsible Agency:* Seminole County Emergency Manager and Board of County Commissioners

*Deadline:* February 15, 2010

*Cost:* Staff Time

*Benefit:* A public which is better protected from flood damage and reduced cost of repairs after flood events.

*This has been completed by Seminole County Board of County Commissioners resolution 2011-R-93.*

#### **Action Item 19 Floodplain Management Planning Committee – LMS Working Group**

With the adoption of this Plan as an appendix to the Seminole County Local Mitigation Strategy, the Floodplain Management Planning Committee will be converted to the permanent LMS Working Group to ensure the mitigation measures are implemented.

*Responsible Agency:* Seminole County Department of Public Safety – County Emergency Manager

*Deadline:* Ongoing

*Cost:* Staff Time

*Benefit:* A single plan which carries out the objectives of protecting residents and businesses within Seminole County from all natural disasters.

*This has been completed. After the Floodplain Management Plan was adopted, the FMPC was converted to a permanent advisory body and integrated into the Seminole County Local Mitigation Strategy (LMS) Working Group. The LMS Working Group meets quarterly to review and promote mitigation proposals, opportunities and projects.*